UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

5HS-12

MEMORANDUM

DATE: NOV 6 1990

SUBJECT: Request for a Removal Action at Residences Adjacent to the Himco Dump site, Elkhart, Elkhart County, Indiana (Site ID # 4J)

FROM: Verneta Simon, On-Scene Coordinator
Emergency and Enforcement Response Branch

TO: David Ullrich, Director
Waste Management Division

PURPOSE

The purpose of this memorandum is to obtain your approval to expend up to $111,775 to initiate a removal action at residences adjacent to the Himco Dump site. The proposed action will mitigate the public health threat caused by this site, by replacing private wells with municipal water service.

The Himco Dump site is listed on the National Priorities List(NPL).

ENDANGERMENT FINDING

Conditions presently exist in these private wells which, if not addressed by implementing the response action documented in this Action Memorandum, will lead to an imminent and substantial endangerment to the public health.

BACKGROUND

The Himco Dump site is located at the intersection of County Road 10 and Nappanee Street in Elkhart, Indiana. This site is bordered by Nappanee Street on the east and County Road 10 on the south. A fish pond borders the west side of the site; the north side of the site borders a gravel pit pond. The affected residential wells are located immediately south of the site on County Road 10 (See Figure 1).

Dumping at this 40-acre site reportedly started in 1960, when Himco Waste Away Service, Inc. developed this marsh into a landfill. According to a former Himco employee, there was no liner, leachate or gas recovery system constructed for this landfill. This landfill also had no borrow source but obtained sandy soil from the gravel pit, the fish pond and essentially anywhere on the perimeter of the site for daily cover. When waste was accepted, it was placed at the ground surface across the site or in five trenches on the east side of the landfill.

The geology of this site consists of unconsolidated Pleistocene deposits, overlying unconsolidated Mississippian-aged Coldwater and Ellsworth Shale. The Pleistocene-aged deposits range in thickness from 85 to 500 feet, with an average thickness of 175 feet. The thickness of the Coldwater and Ellsworth Shale is unknown. There are also two aquifers located at approximate depths of 50 and 150 feet which are separated by confining layers of clay and silt. Groundwater flow is south southeast.

REGULATORY HISTORY

In 1971, the Indiana State Board of Health (ISBH) identified the Himco site as an open dump. In early 1974, residents near the dump complained to ISBH about color, taste and odor problems with their shallow wells. Analyses of these wells by the state showed high levels of manganese and iron. Himco was advised by the state to replace six shallow wells with deeper wells. These shallow wells were finished at depths of approximately 22 feet and the deeper wells were finished at depths ranging from 152 to 172 feet.

In 1975, Himco Waste Away Services, Inc. signed a consent agreement with ISBH Stream Pollution Control Board to close this landfill by September of 1976. The final cover consisted of calcium sulfate overlain by 0-1 feet sand.

In 1979, the U.S. Geological Survery(USGS), in cooperation with the Indiana Department of Natural Resources and Elkhart Water Works, installed monitoring wells around the Himco site as part of a three year study on groundwater resources in Northwest Elkhart County. In 1981, USGS concluded a plume of contamination was moving from the Himco dump towards residential wells on County Road 10.

In 1984, the U.S. EPA Field Investigation Team(FIT) as part of the HRS scoring package, conducted a site inspection of Himco. Analysis of well samples showed groundwater downgradient of the site being impacted by metals, semi-volatile and volatile organic compounds. Also, during the inspection, FIT observed several leachate seeps.

In June of 1988, Himco dump was proposed for the NPL and became a final NPL site in February of 1990.

On August 23, 1989, as part of a 90-day program review mandated by William Reilly, U.S. EPA Administrator, U.S. EPA's Emergency & Enforcement Branch(EERB) tasked TAT to conduct a site assessment at the Himco site. TAT conducted the site assessment on October 10, 1989 after meeting with Larry Sears of Elkhart Water Works to determine the households on municipal water. According to Mr. Sears, all residents downgradient of the Himco site receive municipal water. Residents 100 feet north (upgradient) of the Himco site, on Westwood Street, utilize private wells. Based on the review of TAT's report, EERB concluded that no conditions currently existed at the Himco site to warrant an immediate removal.

On April 17, 1990, TAT and two U.S. EPA OSCs returned to the Himco dump area to sample residential wells because of residents' complaints of unpleasant taste and odors, discoloration, deterioration of appliances, sick pets and skin problems. Samples were collected from six residences south of the site which used the lower aquifer as their potable source, and from six residences to the east of the site, whose potable source is the shallow aquifer. U.S. EPA analyzed these samples for the following parameters: VOCs and total metals. Analyses showed sodium as the only metal of concern, ranging from 1.4 to 445 parts per million (ppm). Total metal analyses are presented in Table 1.

THREAT

The documented conditions at the Himco site meet the criteria for a removal action as stated in the National Contingency Plan Section 400.15(b)(2), specifically:

1) ACTUAL CONTAMINATION OF DRINKING WATER SUPPLY

Groundwater samples collected on April 17, 1990 from residential wells downgradient of the Himco site showed sodium as high as 446 ppm. U.S. EPA's Drinking Water Equivalent Level(DWEL), which is the numeric trigger for a removal, is 20 ppm sodium. In addition, the Agency for Toxic Substances and Disease Registry (ATSDR) reviewed the April 17, 1990 Groundwater data and advised U.S. EPA at a minimum to provide an alternate water supply to the households with the highest levels of sodium ranging from 236 to 446 ppm and to periodically monitor the contaminant plume. ATSDR also stated that long term ingestion of high concentrations of sodium is associated with the development of hypertension, which a number of these residents have already claimed to have. (A copy of ATSDR's evaluation of this groundwater data is attached.)

ENFORCEMENT

See Attachment IV.

PROPOSED ACTION AND ESTIMATED COSTS

The proposed action is to connect six homes to the municipal water system. This action is technically very simple since a 12" watermain already exists at the intersection of County Road 10 and Nappanee Street and will just need to be extended to connect these six homes. This watermain, however, is oversized and USEPA plans to request the Elkhart Water Works Board pay the difference between a 6" watermain and 12" watermain. It is anticipated this action will take approximately two months since Elkhart Water Works will not be available to extend the main and the Agency will have to hire private contractors to perform this work.

The estimated costs for implementing this action are summarized on the next page.

EXTRAMURAL COSTS

ERCS Contractor	$ 38,000
Contingency (25%)	9,500
Subtotal	47,500
TAT	23,400
Extramural Subtotal	70,900
Extramural Contingency(15%)	10,635
TOTAL	81,535

INTRAMURAL COSTS

U.S. EPA Direct Costs [$30 x (396 Labor hours; 360 Hrs.-Region 36 Hrs. - HQ)]	11,880
U.S. EPA Indirect Costs [$51 x (360 Labor hours)]	18,360
TOTAL	30,240
PROJECT CEILING	$111,775

A more detailed ERCS contractor estimate is provided in Attachment V.

EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If action is delayed or not taken, the sodium concentration will increase in the private wells since the plume is originating from the dump. Also, there is an increased chance of local residents developing hypertension.

IMPORTANT POLICY ISSUES

None.

RECOMMENDATION

This decision document represents the selected removal action for residences adjacent to the Himco Dump site in Elkhart, Indiana, developed in accordance with CERCLA as amended by SARA, and, to the extent practicable, the National Contingency Plan. This decision is based on the administrative record for the site. (The attached index identifies the items that comprise the administrative record upon which the selection of the removal action is based. See Attachment VI).

Because these private wells meet the National Contingency Plan, 40 CFR Section 300.415(b)(2) criteria for a removal action, your approval to conduct a removal action is recommended. With your approval, the project ceiling will be $111,775 of which up to $81,535 ($38,000 line item plus $9,500 contingency plus $10,635 extramural contingency) may be used for cleanup contractor costs. Please indicate your decision by signing below.

APPROVAL: David A. Ullrich DATE: 11/6/90
DIRECTOR, WASTE MANAGEMENT DIVSION

DISAPPROVAL: _____ DATE: _____
DIRECTOR, WASTE MANAGEMENT DIVISION

bcc: D. Lopez, OS-210
L. Peterson/T. Nash, 5CS-TUB-3
A. Bauman, 5HS-10
J. Kelly, 5HS-11
R. Powers/R. Buckley, 5HS-GI
R. Bowden, 5HS-12
P. Schafer, 5HS-12
(Support Specialist)
L. Fabinski, ATSDR, 5HS-11
O.Warnsley, RP/CRU, 5HS-TUB-7
T. Lesser, 5PA-14
V. Simon, 5HS-12
(Contracting Officer)
EERB Read File
EERB Delivery Order File
EERB Site File

VSimon/ab/VERNETA'S VERBATIM DISKETTE/HIMCO/09-25-90

ATTACHMENT IV

ENFORCEMENT CONFIDENTIAL INFORMATION
HTMCO DUMP

Redacted-not relevant to the selection of the removal action.

ATTACHMENT V
DETAILED CLEANUP CONTRACTOR COST ESTIMATE

The estimated cleanup contractor costs are as follows:

2,000 feet of 6" watermain installed	$29,000
$390.00 for 1" service x 6 properties	2,340
$1,000 for on-site plumbing x 6 properties	6,000
TOTAL	$37,340

ATTACHMENT VI
ADMINISTRATIVE RECORD INDEX

1. Memo dated August 8, 1990 from Jerome Cater, ATSDR to Louise Fabinski, ATSDR Regional Representative, regarding the April 17, 1990 Residential Well data

2. TAT Letter Report dated June 28, 1990, regarding the Apil 17, 1990 Residential Well Sampling

3. TAT Site Inspection Report dated October 13, 1989

4. Memo dated October 31, 1989 from Robert Bowden to Norman Niedergang, regarding TAT's site inspection